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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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08/696,986 03/03/97 DEFOURNY P DBS38

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PM82/0907

EXAMINER

LEE, J

ART UNIT

PAPER NUMBER

3672

DATE MAILED:

09/07/99

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.
08/696,986

Applicant(s)
Defourny

Examiner
Jong-Suk (James) Lee

Group Art Unit
3672



☒ Responsive to communication(s) filed on Aug 12, 1999

☒ This action is **FINAL**.

☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire three month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

Disposition of Claims

☒ Claim(s) 70-78 and 82-92 is/are pending in the application.

Of the above, claim(s) _____ is/are withdrawn from consideration.

☐ Claim(s) _____ is/are allowed.

☒ Claim(s) 70-78 and 82-92 is/are rejected.

☐ Claim(s) _____ is/are objected to.

☐ Claims _____ are subject to restriction or election requirement.

Application Papers

☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

☐ The drawing(s) filed on _____ is/are objected to by the Examiner.

☒ The proposed drawing correction, filed on Aug 12, 1999 is ☒ approved ☐ disapproved.

☐ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

☐ All ☐ Some* ☐ None of the CERTIFIED copies of the priority documents have been
☐ received.

☐ received in Application No. (Series Code/Serial Number) _____.

☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

*Certified copies not received: _____

☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

☐ Notice of References Cited, PTO-892

☐ Information Disclosure Statement(s), PTO-1449, Paper No(s). _____

☐ Interview Summary, PTO-413

☐ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Notice of Informal Patent Application, PTO-152

--- SEE OFFICE ACTION ON THE FOLLOWING PAGES ---

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DETAILED ACTION

1. The amendment filed on August 12, 1999 has been entered.

2. Applicant's request for reconsideration of the finality of the rejection of the last Office action is persuasive and, therefore, the finality of that action is withdrawn.

3. The numbering of claims is not accordance with 37 CFR 1.126. The original numbering of the claims must be preserved throughout the prosecution. When claims are canceled, the remaining claims must not be renumbered. *When claims are added, except when presented in accordance with 37 CFR 1.121(b), they must be renumbered consecutively beginning with the number next following the highest numbered claims previously presented (whether entered or not).*

Newly added claims 47-55 and 59-69 in amendment filed August 12, 1999 have been renumbered claims 70-78 and 82-92 and treated as such..

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Drawings

4. The proposed drawing correction and/or the proposed substitute sheets of drawings, filed on August 12, 1999 have been approved. However, the proposed reference numeral for the cross section lines in Figs. 3B, 6A and 7A, such as 3B, 6B and 7B respectively are not approved because the lines should be designated by **Arabic or Roman Numerals, 37CFR 1.84(g)(3)**. The cross sectional lines identified by alphabetic postscripts to Arabic numerals in US Patents as recited by Applicant, are not in accordance with 37CFR 1.84(g)(3). Correction is required.

Claim Rejections - 35 USC § 112

5. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

6. Claims 70-78 and 82-88 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

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Re claims 70 and 86: The limitation, "said (resiliently deformable) connecting member operative to transfer a major portion of said transmitted torque and weight to the second member" in claim 70, lines 6-8 and claim 86, lines 7-9 respectively is not supported by disclosure as originally filed. The specification, from page 3, line 35 to page 4, line 4; and from page 15, line 37 to page 16, line 6, discloses means for allowing relative tilting or lateral movement of the first and second members is the resiliently deformable connecting member, and means for holding the first and second members together and for transferring torque and weight from the first to the second member would be a torque transfer mechanism comprising bolt in Fig. 3B, or a series of teeth and recesses in Fig. 6B, or enmeshing cogs of chamfered or square in Figs 7B and 7C.

Claim Rejections - 35 USC § 102

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

8. Claims 70, 71, 73, 75-77, 82, 86 and ~~91~~⁸⁷ are rejected under 35 U.S.C. 102(b) as being

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1 anticipated by Frear et al.

2 Frear et al. disclose a tiltable drill string connection that includes resilient deformable
3 members (77, 45) and a transfer member (50, 52, 85) for transferring torque between the
4 connected drill string members (12, 13). Frear et al. also show a retainer member of threaded lock
5 ring (60). With regard to claim 59, Frear et al. show connecting passageway (14, 28) and which
6 seal (45) prevents the escape of fluid between the members.

7
8 9. Claims 70, 73, 74, 77 and 86-88 are rejected under 35 U.S.C. 102(b) as being anticipated
9 by Black.

10 Black discloses a flexible joint for drill string comprises a transfer member (27) and a
11 resilient deformable member (23) for transmitting weight and torque between a first and second
12 members (19, 20). Transfer member includes a series of radial teeth on the first member (19) and
13 recesses in the second member (20) at the portion wherein the transfer member secured at the
14 socket portion (22) of the drill string as depicted in Fig. 2. The second member (20) formed with
15 a connecting means (26, 28).

16
17 10. Claims 70, 71 and 77 are rejected under 35 U.S.C. 102(b) as being anticipated by Bodine.

18 Bodin discloses a drill bit coupled to an orbiting mass oscillator comprises a first member
19 (11), a second member (16) and resiliently deformable connecting member (22) between the first

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1 and second members.

3 *Claim Rejections - 35 USC § 103*

4 11. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness
5 rejections set forth in this Office action:

6 (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in
7 section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are
8 such that the subject matter as a whole would have been obvious at the time the invention was made to a person
9 having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the
10 manner in which the invention was made.

11
12 12. Claim 78 is rejected under 35 U.S.C. 103(a) as being unpatentable over Frear et al.

13 Although Frear et al. fails to disclose the connecting member having a hydrogenated nitrile
14 rubber having a Shore A hardness of at least 80, it is well known expedient within the drilling art
15 to utilize the elastomeric material such as the elastomer having a Shore A hardness of at least 80
16 for resiliently connecting member/ the elastomeric seal in order to reduce extrusion under load.
17 Further, such modification would have constituted an alternative means/ obvious matter of design
18 choice well within the ordinary skill in the art.

19
20 13. Claim 83 is rejected under 35 U.S.C. 103(a) as being unpatentable over Frear et al. in view
21 of Leroy.

22 Frear et al. disclose the invention substantially as claimed except for a flexible pipe

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between the passageways of the connecting members. Leroy teaches to provide a flexible pipe (15) in the mud passage between a pair of articulating members so as to prevent leakage between the members. It would have been considered obvious to one having ordinary skill in the art at the time the invention was made to have provided Frear et al.'s connecting members with a flexible pipe in the area of the passageway where the members meet in view of Leroy in order to prevent the leakage of mud between the members.

Response to Arguments

14. Applicant's arguments with respect to the function of resiliently deformable connecting member, "said connecting member operative to transfer a major portion of said transmitted torque and weight to the second member" in amended claims 70 and 86, is not persuasive because this is not means plus function language. Further, a major portion of torque would be received to the holding mechanism, such as bolts or teeth/recesses etc.

Allowable Subject Matter

15. Claims ^{90 92}~~86-88~~ would be allowable over the prior art of record.

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Conclusion

16. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

17. **This application contains claims 72, 84, 85 and 89 drawn to an invention nonelected with traverse in Paper No. 10. A complete reply to the final rejection must include cancellation of nonelected claims or other appropriate action (37 CFR 1.144) See MPEP § 821.01.**

18. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jong-Suk (James) Lee whose telephone number is (703) 308-6777. The

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1 examiner can normally be reached between the hours of 7:30AM to 5:00PM Monday thru
2 Thursday and every other Friday (second Friday of the bi-week). If attempts to reach the
3 examiner by telephone are unsuccessful, the examiner's supervisor, David J. Bagnell, can be
4 reached on (703) 308-2151. The fax phone number for this Group is (703) 305-3597.

5
6 Any inquiry of a general nature or relating to the status of this application or proceeding
7 should be directed to the Group receptionist whose telephone number is (703) 308-2168.

8
9 Jong-Suk (James) Lee *JS*

10 August 31, 1999

David Bagnell
DAVID BAGNELL
SUPERVISORY PATENT EXAMINER
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